



FORM PTO 1390 (REV 5-99)		US DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTORNEY DOCKET NUMBER 2001-1209A
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. §371			U.S. APPLICATION NO. 07/937482 (if known, see 37 CFR 1.51) NEW
International Application No. PCT/JP00/01800	International Filing Date March 23, 2000	Priority Date Claimed April 2, 1999	
Title of Invention CERAMIC PRODUCT USED WITH WATER AND METHOD OF STAIN RESISTANT TREATMENT THEREFOR			
Applicant(s) For DO/EO/US Haruyuki MIZUNO; Shigeo IMAI; Masashi MIURA; Kazuyoshi ISO; Hiroyuki MIYAMOTO; Takeshi NISHIKAWA; Shozo YAMAMOTO; Keisuke YAMAMOTO; Yoshiyuki TSUKADA; and Yasunobu MASU			
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:			
<p>1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a filing under 35 U.S.C. §371.</p> <p>2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. §371.</p> <p>3. <input checked="" type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. §371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. §371(b) and PCT Articles 22 and 39(1).</p> <p>4. <input checked="" type="checkbox"/> A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.</p> <p>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. §371(c)(2))</p> <p>a. <input type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau).</p> <p>b. <input checked="" type="checkbox"/> has been transmitted by the International Bureau. ATTACHMENT A</p> <p>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US)</p> <p>6. <input checked="" type="checkbox"/> A translation of the International Application into English (35 U.S.C. §371(c)(2)). ATTACHMENT B</p> <p>7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. §371(c)(3)).</p> <p>a. <input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau).</p> <p>b. <input type="checkbox"/> have been transmitted by the International Bureau.</p> <p>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</p> <p>d. <input type="checkbox"/> have not been made and will not be made.</p> <p>8. <input type="checkbox"/> A translation of the amendments to the claims under PCT Article 19.</p> <p>9. <input checked="" type="checkbox"/> An (executed) oath or declaration of the inventor(s) (35 U.S.C. §371(c)(4)). ATTACHMENT C</p> <p>10. <input type="checkbox"/> A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. §371(c)(5)).</p> <p>Items 11. to 14. below concern other document(s) or information included:</p> <p>11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</p> <p>12. <input checked="" type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. ATTACHMENT D</p> <p>13. <input type="checkbox"/> A FIRST preliminary amendment.</p> <p><input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment.</p> <p>14. <input checked="" type="checkbox"/> Other items or information: Notification Concerning Submission or Transmittal of Priority Document - ATTACHMENT E</p>			

U.S. APPLICATION NO. (if known, see 37 CFR 1.53) NEW 09/937482		INTERNATIONAL APPLICATION NO. PCT/JP00/01800		ATTORNEY'S DOCKET NO. 2001-1209A					
15. <input checked="" type="checkbox"/> The following fees are submitted BASIC NATIONAL FEE (37 CFR 1.492(a)(1)-(5)): Neither international preliminary examination fee nor international search fee paid to USPTO and International Search Report not prepared by the EPO or JPO \$1000.00 International Search Report has been prepared by the EPO or JPO \$ 860.00 International preliminary examination fee not paid to USPTO but international search paid to USPTO \$ 710.00 International preliminary examination fee paid to USPTO but claims did not satisfy provisions of PCT Article 33(1)-(4) \$ 690.00 International preliminary examination fee paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4) \$ 100.00 ENTER APPROPRIATE BASIC FEE AMOUNT =				<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">CALCULATIONS</td> <td style="width:50%; text-align: center;">PTO USE ONLY</td> </tr> <tr> <td colspan="2" style="height: 100px;"></td> </tr> </table>		CALCULATIONS	PTO USE ONLY		
CALCULATIONS	PTO USE ONLY								
Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$					
Claims	Number Filed	Number Extra	Rate						
Total Claims	40 -20 =	20	X \$18.00	\$360.00					
Independent Claims	2 - 3 =		X \$80.00	\$					
Multiple dependent claim(s) (if applicable)			+ \$270.00	\$270.00					
TOTAL OF ABOVE CALCULATIONS =				\$1490.00					
<input type="checkbox"/> Small Entity Status is hereby asserted. Above fees are reduced by 1/2.				\$					
SUBTOTAL =				\$1490.00					
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				+ \$					
TOTAL NATIONAL FEE =				\$1490.00					
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40 per property +				\$40.00					
TOTAL FEES ENCLOSED =				\$1530.00					
				Amount to be refunded	\$				
				Amount to be charged	\$				
a. <input checked="" type="checkbox"/> A check in the amount of \$1530.00 to cover the above fees is enclosed. A duplicate copy of this form is enclosed. b. <input type="checkbox"/> Please charge my Deposit Account No. 23-0975 in the amount of \$_____ to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>23-0975</u> .									
NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.									
19. CORRESPONDENCE ADDRESS <div style="text-align: center;">  000513 PATENT TRADEMARK OFFICE </div>			By:  Nils E. Pedersen, Registration No. 33,145 WENDEROTH, LIND & PONACK, L.L.P. 2033 "K" Street, N.W., Suite 800 Washington, D.C. 20006-1021 Phone: (202) 721-8200 Fax: (202) 721-8250 September 26, 2001						

11/22/83

09/937482

26 SEP 2001

SPECIFICATION

CERAMIC PRODUCT USED WITH WATER AND METHOD OF STAIN RESISTANT TREATMENT THEREFOR

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TECHNICAL FIELD

The present invention relates to a ceramic product used in a place where water is used, for example, in a toilet, kitchen or lavatory in a house. Such a ceramic product includes flush
10 toilets, wash basins, etc. The invention further relates to a method of stain resistant treatment applied to the ceramic product.

BACKGROUND ART

Ceramic products such as flush toilets come into contact
15 with human waste, aqueous solution of soap, cleansing liquid, shampoo, lipstick, hairdye, etc. as well as with water in their use. In view of this, a vitreous glazed layer is formed on an inner surface etc. of the ceramic product so that stain such as human waste can easily be eliminated. Furthermore, an
20 antibacterial treatment causing an oligodynamic reaction has recently been applied to the glazed layer for prevention of production of slime and urinary calculus resulting from these stains. Furthermore, the human waste, soap liquid, cleansing liquid, shampoo, hairdye, etc. are aqueous. These adhere to the
25 inner surface of the ceramic product together with water and thereafter dry into stain. In view of this, a water repellent treatment is applied to a glazed surface so that these materials are prevented from remaining on the glazed surface.